



Model Number: 2553-B5B5

RF Engineering
and Custom Build

4 channel L-band AGC Amplifier

With Current and RF Power Monitoring



Front View of Model 2553-B5B5

This 4-channel L-band AGC Amplifier is designed to amplify up to 4 L-band (850-2150 MHz) signals. The unit has automatic gain control to balance RF Feeds, for example, in to an L-band matrix or distribution system. It is housed in a 2U high shelf.

This unit benefits from dual redundant power supplies which can be monitored via a dry contact alarm port on the rear panel or via front panel LED's which provide a visual status. The front panel is also equipped with 4 tri-colour LEDs which show one of four different states and provide simplified monitoring of the operation of the AGC Amplifier status.



Rear View of Model 2553-B5B5

A Communications Port on the rear panel allows for Current Monitoring of the system. This unit has 50 ohm BNC connectors, but other impedances and connector types are available (model numbers will vary).





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Power Monitoring

Technical specifications and operating parameters

RF Parameters		
Number of Channels per chassis	4	
Frequency Range	950-2150 MHz (L-band)	
Input Level Range	-10 to -50 dBm	
Output Power Level	-20 ± 2.5 dBm	
Output Frequency Response (full band)	± 2 dBm	
Output Frequency Response (Any 40 MHz segment within L-band)	± 0.5 dB	
Inter-modulation Distortion, OIP ₃	+ 24dBm typical, 23 dBm (min)	
Gain Stability	± 0.2 dB at constant temp	
Noise Figure	+ 30 dB (max)	
Input Return Loss	> 14 dB typical	
Output Return Loss	> 12 dB typical	
Spurious Products (in-band)	< -60 dBc (excludes intermods & harmonics)	
Isolation	I/P – I/P	> 50 dB
	O/P – O/P	> 50 dB
	I/P – O/P	> 50 dB

Physical	
Input Connector	BNC
Input Impedance	50Ω
Output Connector	BNC
Output Impedance	50Ω
Dimensions	2U high x 350mm deep x 19" wide
Colour	White 00-E-55 semi-gloss

System Control	
Display	Front Panel LED's for monitoring amplifiers and PSU's
Alarms	Dry contact alarm port on rear panel
Alarm Monitoring Circuitry	Closed Contact, D connector on rear panel
Communications Port	RS232 on rear panel
High Input Alarm Front (for each channel)	Visible Alarm
High Input Alarm rear (for each channel)	Closed Contact RS232
High Input Alarm Trigger Level	≥ 0 dBm

Environmental	
Operating temperature	0 to 45°C
Location	Indoor use only
Storage temperature	-20°C to +75°C
Humidity	85% non-condensing

Power	
AC Power	100-240V ac Auto-sensing
LNB Power	None
PSU	Dual redundant
Hot-swap PSU	No

Key Features	
Automatic Gain Control Amplifier	
Dual redundant power supplies	
Current & RF Power Monitoring	

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